

Natural Resources Conservation Service

**Soil Conservation Technician
Career Guide**

Table of Contents

Introduction 1

NRCS Career Mapping 1

Career Group Description 2

Jobs within Soil Conservation 2

Crosswalk of Career Levels to the General Schedule 3

Soil Conservation Job Descriptions 5

Overall Soil Conservation Job Duties 7

Specifics by Job – Soil Conservation Technician 9

Job Duties by Career Level – Soil Conservation Technician 9

Foundational Competencies – Soil Conservation Technician 10

Recommended Foundational Experience – Soil Conservation Technician 11

Occupational Competencies – Soil Conservation Technician 12

Recommended Occupational Experience – Soil Conservation Technician 13

Recommended Trainings – Soil Conservation Technician 14

Recommended Education/Certifications – Soil Conservation Technician 18

Professional Associations – Soil Conservation Technician 19

Appendix 20

Introduction

NRCS Career Mapping

These Career Maps will allow incumbents to identify the steps needed to qualify for higher-level positions in their current career group. Each career map has a career guide that will provide sample training and developmental activities needed to meet competency gaps between the incumbent's current position and his or her desired position. In addition, these maps will be used for recruitment purposes, explaining what a candidate needs to qualify for various positions.

Each occupation's Career Guide will include:

- A list of competencies with proficiency ratings identified for each position
- A sample list of training and experiential activities linked to developing each competency
- Clear guidance about how positions relate to each other

Together, these elements will help inform NRCS employees' and candidates' decisions about their careers at NRCS.

The purpose of this document is to provide an overview of the knowledge area requirements and associated training and developmental experiences associated with each position in the Soil Conservation career group. The Career Guides are not intended to be all encompassing, but rather to give users an overview and snapshot of each job within NRCS.

Career Group Description

This is an overall description of the career group.

Table 1. Soil Conservation Career Group Description

Description
These positions are responsible for working with landowners through conservation planning and assistance designed to benefit the soil, water, air, plants, and animals that result in productive lands and healthy ecosystems.

Jobs within Soil Conservation

Table 2. Job Titles within Soil Conservation

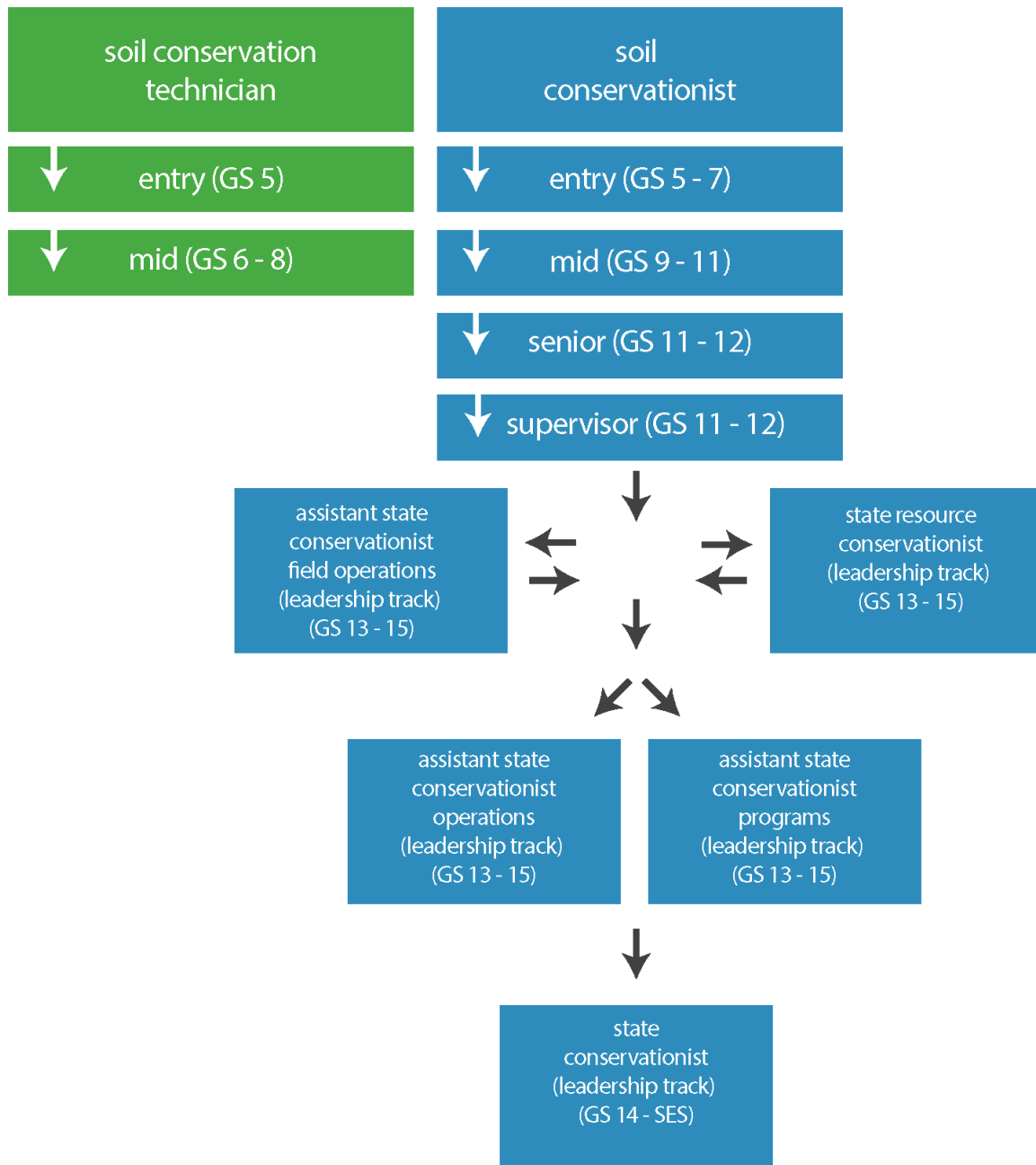
OPM Series Code	Job Title
0458	Soil Conservation Technician
0457	Soil Conservationist
0457	Assistant State Conservationist – Field Operations
0457	Assistant State Conservationist – Programs
0457	Assistant State Conservationist – Operations
0457	State Resource Conservationist
0301	State Conservationist

Crosswalk of Career Levels to the General Schedule

The table and career map below reflect the General Schedule (GS) levels associated with the individual Career Level labels. Definitions of the Career Levels are included in the Appendix.

Table 3. GS by Career Level

Job	Entry	Mid	Senior	Sup	Mgr
Soil Conservation Technician	GS 5	GS 6-8			
Soil Conservationist	GS 5-7	GS 9	GS 11	GS 11-12	
Assistant State Conservationist – Field Operations					GS 13-15
Assistant State Conservationist – Programs					GS 13-15
Assistant State Conservationist – Operations					GS 13-15
State Resource Conservationist					GS 13-15
State Conservationist					GS 14 - SES



Soil Conservation Job Descriptions

This is a general overview of each Soil Conservation job, intended to provide a common framework for describing what the job is.

Table 4. Soil Conservation Job Descriptions

Job	Description
Soil Conservation Technician	This person assists soil and district conservationists in the implementation of total resource management system plans; providing assistance in conservation planning. This person is responsible for surveying, staking, information gathering, designing, engineering plan preparation, and construction inspection as well as providing training to NRCS and SWCD in these areas.
Soil Conservationist	This person is a line officer who plans the application of total resource management systems; providing conservation planning assistance from initial evaluation to completion. This person possesses a practical knowledge of the methods and techniques of soil, water, and environmental conservation as they relate to agricultural operations and land use measures. This person also helps landowners deal with issues such as soil, water, air, plant, and animal resource concerns.
Assistant State Conservationist – Field Operations	This person is a line officer who provides supervision, guidance, and assistance to all field offices and/or designated managerial units in the designated state. This person supervises the area staff and district conservationists at the field office level and/or managerial unit, coordinating a well balanced resource conservation program.
Assistant State Conservationist – Programs	This person is responsible for improving delivery of financial assistance programs, improving contract management, and accelerating conservation implementation.

Job	Description
Assistant State Conservationist – Operations	This person is responsible for improving the state's day-to-day operations management, and for data management, quality assurance activities, and streamlining business practices.
State Resource Conservationist	This person is responsible for the coordination, direction, and training of science and technology. This person provides leadership in the conservation planning process and development of policies.

Overall Soil Conservation Job Duties

Below are three major duties associated with all Career Levels in a job.

Table 5. Overall Soil Conservation Job Duties

Job	Duty 1	Duty 2	Duty 3
Soil Conservation Technician	Assists in field investigations to determine the problems landowners face and collects the data needed for field offices to develop structural solutions	Implements and verifies completed practices to determine if goals were met and continually follows up to determine if additional interventions are required	Conducts survey and design activities for the implementation of conservation practices
Soil Conservationist	Works with landowners to develop, implement, maintain, and revise conservation plans	Implements initiatives to promote Farm Bill programs to support conservation plans	Evaluates the implementation of conservation plans and their alternatives
Assistant State Conservationist – Field Operations	Coordinates the development of complex team activities and resource planning and management plans in the state	Guides teams in developing and maintaining effective working relationships with federal, state, and local agencies to improve conservation partnerships	Manages staff resources by preparing long- and short-range schedules for staff activities, preparing and monitoring budgets and organizing work

Job	Duty 1	Duty 2	Duty 3
Assistant State Conservationist – Programs	Serves as the conservation program and Farm Bill state expert providing direction to program managers	Assists the State Technical Committee and partners in carrying out quality Farm Bill programs and other conservation programs	Oversees the financial distribution of the Farm Bill programs as well as the technical assistance and budgetary management of these programs
Assistant State Conservationist – Operations	Develops internal staffing and training strategies and evaluates their effectiveness	Develops and implements a system of operational and program assessments and reviews to evaluate effectiveness of conservation planning and practices	Develops and maintains effective working relationships with conservation districts and state-level natural resources agencies
State Resource Conservationist	Provides leadership for the planning and technical training of all employees	Reviews and updates technical standards and specifications	Communicates with internal and external customers to ensure technical and research knowledge is shared

Specifics by Job – Soil Conservation Technician

Job Duties by Career Level – Soil Conservation Technician

These are three major duties associated with individual Career Levels for the Soil Conservation Technician job. In general, these are slight deviations of the Overall Duties, intended to show the differences in responsibility between the Career Levels.

Table 6. Career Level Duties – Soil Conservation Technician

Job Duty	Entry	Mid	Senior
Assists in collecting data for field offices to develop structural solutions	✓		
Assists in checking completed practices to determine if goals were met	✓		
Assists in survey and design activities for the implementation of conservation practices	✓		
Assists in field investigations to determine the problems landowners face and collects the data needed for field offices to develop structural solutions		✓	
Checks completed practices to determine if goals were met and continually follows-up to determine if additional interventions are required		✓	
Independently conducts surveys and designs of conservation practices		✓	

Foundational Competencies – Soil Conservation Technician

These are the more significant foundational competencies of the job, applicable at all Career Levels. The set of more significant foundational competencies and associated proficiency levels should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes the more significant competencies.

Table 7. Foundational Competencies – Soil Conservation Technician

Foundational Competency	Proficiency Rating	
	Entry	Mid
1. Attention to Detail	1	3
2. Accountability	1	3
3. Organizing and Prioritizing Work	1	3
4. Technology Management	1	3
5. Organizational Awareness	1	3
6. Continuous Learning	1	3
7. Initiative	1	3
8. Integrity and Honesty	1	3
9. Oral Communications	1	2
10. Interpersonal Skills	1	3
11. Decisive Judgment and Decision Making	1	2
12. Information Management	1	3
13. Customer Service	1	3

Recommended Foundational Experience – Soil Conservation Technician

These are the more significant experiences (e.g., stretch assignments), based on the Foundational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

**Table 8. Recommended Foundational Experience –
Soil Conservation Technician**

Foundational Experience	Career Level	Foundational Competency
Teaches entry-level Soil Conservation Technicians how to perform their primary job duties	Mid	Continuous Learning
		Initiative
		Oral Communication

Occupational Competencies – Soil Conservation Technician

These are the more significant occupational competencies of the job, applicable at all Career Levels. These should differentiate the job from other jobs within and across the career groups. Proficiency Rating Definitions are included in the Appendix. This list includes all occupational competencies associated with the Soil Conservation Technician job.

Table 9. Occupational Competencies – Soil Conservation Technician

Occupational Competency	Proficiency Rating	
	Entry	Mid
1. Conservation Planning – Data Collection	2	3
2. Conservation Planning – Analysis	2	3
3. Surveying	2	3
4. Conservation Planning – Engineering Design	2	4
5. Conservation Planning – Engineering Implementation	2	4
6. Conservation Planning – Follow-up and Maintenance	2	3

Recommended Occupational Experience – Soil Conservation Technician

These are the more significant experiences (e.g., stretch assignments), based on the Occupational Competencies, that an individual can participate in to prepare to be a viable candidate for the job.

**Table 10. Recommended Occupational Experience –
Soil Conservation Technician**

Occupational Experience	Career Level	Occupational Competency
Completes a survey independently	Entry	Conservation Planning – Data Collection
		Conservation Planning – Analysis
		Surveying
Completes a survey job from start to finish independently with few or no errors	Mid	Conservation Planning – Data Collection
		Conservation Planning – Analysis
		Surveying
		Conservation Planning – Engineering Design
Implements a design completed by someone else	Mid	Conservation Planning – Engineering Implementation
Conducts project follow-up	Mid	Conservation Planning – Follow-up and Maintenance

Recommended Trainings – Soil Conservation Technician

These are the recommended trainings for individuals applicable at all Career Levels. The set of recommended trainings and associated competencies should provide specific opportunities for individuals to better prepare themselves for jobs at their desired job level. Competency Definitions are included in the appendix.

Table 11. Recommended Trainings – Soil Conservation Technician

Recommended Training	Career Level	Competencies
Computer Security Awareness	Entry	Technology Management (F)
Effective Interpersonal Skills	Entry	Interpersonal Skills (F)
		Conflict Management (F)
		Teamwork (F)
		Stress Tolerance and Resilience (F)
Effective Presentations	Entry	Oral Communication (F)
Introduction to NRCS	Entry	Organizational Awareness (F)
Team Training	Entry	Teamwork (F)
Introduction to Ecological Principles: A Basic Biology Course	Entry	Conservation Planning – Engineering Design (O)
Hydrology Training Series – Module 101 – Introduction to Hydrology	Entry	Conservation Planning – Engineering Design (O)
Hydrology Training Series – Module 102 – Precipitation	Entry	Conservation Planning – Engineering Design (O)
Hydrology Training Series – Module 103 – Runoff Concepts	Entry	Conservation Planning – Engineering Design (O)
Hydrology Training Series – Module 104 – Runoff Curve Number Computations	Entry	Conservation Planning – Engineering Design (O)
Hydrology Training Series – Module 105 – Runoff Computations	Entry	Conservation Planning – Engineering Design (O)

Recommended Training	Career Level	Competencies
Hydrology Training Series – Module 106 – Peak Discharge	Entry	Conservation Planning – Engineering Design (O)
Hydrology Training Series – Module 151 – EFM2 Microcomputer Program	Entry	Conservation Planning – Engineering Design (O)
Hydrology Training Series – Module 206A – Time of Concentration	Entry	Conservation Planning – Engineering Design (O)
Hydrology Training Series – Module 206B – Peak Discharge Graphical Method, TR-55	Entry	Conservation Planning – Engineering Design (O)
Hydrology Training Series – Module 251 – TR-55 Microcomputer Program	Entry	Conservation Planning – Engineering Design (O)
Soil Mechanics Training Series – Module 1	Entry	Conservation Planning – Engineering Design (O)
Soil Mechanics Training Series – Module 2	Entry	Conservation Planning – Engineering Design (O)
Soil Mechanics Training Series – Module 3	Entry	Conservation Planning – Engineering Design (O)
Cultural Resources Training	Entry	Conservation Planning – Data Collection (O)
Structure Planning for Technicians (In-State)	Entry	Conservation Planning – Engineering Implementation (O)
Hydraulics for Technicians (In-State)	Entry	Conservation Planning – Engineering Implementation (O)
Tech 211 – Economics of Natural Resource Planning	Entry	Conservation Planning – Analysis (O)

Recommended Training	Career Level	Competencies
Boot Camp Orientation	Entry/Mid	Representing the Agency (F)
		Organizational Awareness (F)
		Customer Service (F)
		Problem Solving (F)
		Conservation Planning – Data Collection (O)
		Conservation Planning – Analysis (O)
		Surveying (O)
		Conservation Planning – Engineering Design (O)
		Conservation Planning – Follow-up and Maintenance (O)
Survey Design Training	Entry/Mid	Surveying (O)
Toolkit/PRS Training	Mid	Conservation Planning – Data Collection (O)
		Conservation Planning – Analysis (O)
		Surveying (O)
		Conservation Planning – Engineering Design (O)
		Conservation Planning – Engineering Implementation (O)
		Conservation Planning – Follow-up and Maintenance (O)
WI Construction Inspection (In-State)	Mid	Conservation Planning – Engineering Implementation (O)
Conflict Resolution	Mid	Conflict Management (F)
Tech 505 – Soil Bioengineering	Mid	Conservation Planning – Engineering Design (O)
Tech 115 – Fundamentals of Concrete	Mid	Conservation Planning – Engineering Design (O)
Soil Mechanics Training Series – Basic Soil Properties Module 4 – Volume-Weight Relations – Level II	Mid	Conservation Planning – Engineering Design (O)
Soil Mechanics Training Series – Basic Soil Properties Module 5 – Compaction – Level II	Mid	Conservation Planning – Engineering Design (O)

Recommended Training	Career Level	Competencies
Conservation Marketing Skills	Mid	Representing the Agency (F)
		Organizational Awareness (F)
		Oral Communication (F)
		Influence and Negotiating (F)
		Customer Service (F)
Conservation Planning Course	Mid	Organizing and Prioritizing Work (F)
		Problem Solving (F)
		Customer Service (F)
		Conservation Planning – Engineering Design (O)

F = Foundational Competency and O = Occupational Competency.

Recommended Education/Certifications – Soil Conservation Technician

These are the recommended education/certification requirements to attain each level of the Soil Conservation Technician job. These recommendations are based on Office of Personnel Management (OPM) guidelines as well as Subject Matter Expert recommendations.

Table 12. Recommended Education and Certifications – Soil Conservation Technician

Education/Certifications	Career Level	
	Entry	Mid
1. Successful completion of 1 year of study including at least 6 semester hours in courses such as range management or conservation, agriculture, forestry, wildlife management, engineering, biology, mathematics or other natural or physical sciences	✓	
2. Successful completion of a bachelor's degree (a) majoring in forestry, range management or a field directly related to the position, or (b) that included at least 24 semester hours in any combination of courses such as those shown above		✓
3. Experience can replace bachelor's degree		✓

Professional Associations – Soil Conservation Technician

These are three professional associations recommended as resources for individuals interested in the Soil Conservation Technician job.

Table 14. Professional Associations – Soil Conservation Technician

Soil Science Society of America (SSSA)
The Wildlife Society
Resource Conservation & Developmental Councils

Appendix

Job Level Definitions

You will see “Entry”, “Mid”, “Sr”, “Dis Lead”, “Spv”, and “Mgr” career levels along with the necessary proficiency ratings for each of these levels. The table below explains the differences between each of the five possible career levels.

Specifically, it provides an overview of each job level, followed by a high level description of the experience/knowledge associated with the job level, the type of duties performed at the job level, and supervisory responsibilities at the job level.

	Entry	Mid	Senior/ Technical	Discipline Specialist	Supervisor	Manager
Overview	Starting level of a career. Consists of individuals entering a field of work for the first time, as well as those still early in their career.	Full performance level. Individuals at this level are skilled enough to be independent contributors.	Advanced performance level. Individuals have enhanced technical knowledge or skills in a field.	Advanced performance level. Individuals have enhanced technical knowledge or skills in a field. Apply these knowledge/skills at a regional/national level	First-line supervisory level. These individuals supervise non-supervisors.	Advanced supervisory level. These individuals typically direct the work of an organizational unit, (including supervising supervisors) and are held accountable for the unit's progress.

	Entry	Mid	Senior/ Technical	Discipline Specialist	Supervisor	Manager
Experience/ Knowledge	Minimal work experience in the area and foundational knowledge to begin a career in the field.	Sufficient work experience and knowledge in the area to perform all core functions of the job.	Sufficient work experience and technical knowledge to be considered a subject matter expert in the field.	Sufficient work experience and technical knowledge to be considered a subject matter expert in the field from a regional and/or national perspective.	Sufficient work experience and knowledge in the area and organization to directly oversee the work of others.	Sufficient work experience and knowledge in the area and organization to direct the work of an organizational unit.
Duties	Performs basic position duties, often under close supervision.	Performs key duties of the position independently with little supervision.	Performs advanced position duties that may be based on: <ul style="list-style-type: none"> • Enhanced technical knowledge or skills in a field. • Extensive non-supervisory administrative responsibilities. 	Performs advanced position duties at the regional and/or national level that may be based on: <ul style="list-style-type: none"> • Enhanced technical knowledge or skills in a field. • Extensive non-supervisory administrative responsibilities. 	Performs first-line supervisory duties (e.g., supervising employees, performance appraisals and leave approvals).	Performs managerial duties such as managing work plans, schedules, and resources in order to meet organizational objectives.

	Entry	Mid	Senior/ Technical	Discipline Specialist	Supervisor	Manager
Supervisor Responsibilities	None	None	None	None	Supervision of some employees, but does not supervise other supervisors.	Supervision of other supervisors.

Proficiency Scale Definitions

We prepopulated the necessary proficiency ratings for each career level based on the competency models and proficiency ratings that you developed. The proficiency scale is a 5-point scale that is used to suggest how knowledgeable individuals should be on a particular competency:

1 – Basic

- Applies the competency in the simplest situations
- Requires close and extensive guidance
- Demonstrates awareness of concepts and processes

2 – Foundational

- Applies the competency in somewhat difficult situations
- Requires frequent guidance
- Demonstrates familiarity with concepts and processes

3 – Intermediate

- Applies the competency in difficult situations
- Requires occasional guidance
- Demonstrates understanding of concepts and processes

4 – Advanced

- Applies the competency in considerably difficult situations
- Generally requires little or no guidance
- Demonstrates broad understanding of concepts and processes

5 – Expert

- Applies the competency in exceptionally difficult situations
- Serves as a key resource and advises others
- Demonstrates comprehensive, expert understanding of concepts and processes